

Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

### REMARKS

#### Present Status of the Application

The Office Action objected to the title of the invention because of typographical error. The Office Action rejected claims 1-2 and 5-12 under 35 U.S.C. 102(e), as being anticipated by Takada et al. (U.S. 6,479,813, hereafter Takada). The Office Action also rejected claims 3-4 under 35 U.S.C. 103(a) as being unpatentable over Takada in view of Canizles Jr. (U.S. 2003/0073325, hereafter Canizles). Applicants have amended the title to overcome the objection and have amended claim 1 to correct a minor typo error. Applicants have further amended claim 9 to improve clarity. After entry of the foregoing amendments, claims 1-12 remain pending in the present application, and reconsideration of those claims is respectfully requested.

#### Summary of Applicant's Invention

The Applicant's invention is directed to a rotatable camera set having a seat unit and a camera unit. There are several concentric transmission circular traces (302 to 306 as shown in Fig. 3 of the present invention) on one side of the camera unit 202/300 and the transmission circular traces are coplanar. There are several conductive rolling units (402 to 406 as shown in Figs. 2A, 2B, 4A and 4B) on the seat unit 200/400. While the camera unit is mounted on the seat unit through the connecting unit, the conductive rolling units are in contact with the corresponding transmission circular traces respectively. The signals are transmitted between the camera unit and the external device through the

7  
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Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

transmission circular traces and the conductive rolling units. No more leads are used to be the signal transmission unit between the camera unit and the external device so that the camera unit can rotate freely in any kind of angle without strangling by the twisting leads caused by the rotation.

#### **Discussion of objections**

The title of the invention is objected to because of the typographical error. In response thereto, Applicants have amended the title by replacing "CAMERA ABLE TO FREELY ROTATE WITH 360<sup>0</sup>" with "CAMERA ABLE TO FREELY ROTATE".

Applicants also have amended claim 1 to correct the typo error. The amendment made herein is nothing to do with distinguishing the claimed features in claim 1 over the cited arts. Further, no new matter has been introduced into application by the amendment made herein.

#### **Discussion of Office Action Rejections**

*The Office Action rejected claims 1-2 and 5-12 under 35 U.S.C. 102(e), as being anticipated by Takada et al. (U.S. 6,479,813, hereafter Takada) and asserted that Takada discloses all claimed features of the present invention.*

Applicants respectfully traverse the rejections for at least the reasons set forth below.

It is well established that anticipation under 35 U.S.C. 102 requires each and every

Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

elements of the rejected claims must be disclosed exactly by a single prior art reference.

The independent claims 1, 9 and 10 are allowable for at least the reason that Takada fails to teach or disclose each and every features of the proposed independent claims 1, 9 and 10. Claims 1, 9 and 10 recite respectively:

Claim 1. A camera that can freely rotate with an angle of 360°, comprising:

a seat unit;

a plurality of conductive rolling units, allocated on one side of the seat;

a plurality of conductive lines, connected to the conductive rolling units corresponding thereto;

a camera unit, comprising a plurality of transmission traces in a form of a concentric circular structure on one surface thereof, the transmission traces functioning as a plurality of terminals of the camera unit, wherein the terminals include a power source terminal and an optional signal input/output terminal; and

a connecting-fitting unit, mounting the camera unit on the seat unit, allowing the conductive rolling units to be in electrical contact with the corresponding transmission traces, and allowing the camera to freely rotate over the side of the seat that has the conductive rolling units.

Claim 9. A rotatable input/output terminal structure, applicable for power supply and signal input/output of an electronic apparatus, wherein the electronic apparatus is installed on a seat and has the function of freely rotating with an angle of 360°, the input/output terminal structure comprising:

a plurality of transmission traces formed on one side of the electronic apparatus, wherein the transmission traces are coplanar and have a concentric circular structure and are electrically connected to a plurality of terminals of the electronic apparatus, including a power source terminal and an optional signal input/output terminal;

a plurality of conductive rolling units, allocated on one side of the seat, wherein a position of each of the conductive rolling units is corresponding to one of the transmission traces, and when the electronic apparatus is installed on the seat, the conductive rolling units are in electric contact with the transmission traces to allow the electronic apparatus to rotate over the seat; and

a plurality of conductive lines, electrically connected to the conductive rolling units to provide a power source and a signal input/output to the electronic apparatus.

Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

Claim 10. A signal input/output method of a camera, comprising:  
forming a plurality of transmission traces on one side of a camera unit, wherein the transmission traces have a concentric circular structure;

connecting the transmission traces to a plurality of corresponding terminals, wherein the terminals include a power source terminal and an optional signal input/output terminal;

providing a seat unit;

allocating a plurality of conductive rolling units on one side of the seat unit, wherein a position of each conductive rolling unit corresponds to a position of the corresponding transmission trace;

providing a plurality of conductive lines to connected to the conductive rolling units; and

mounting the camera unit on the seat to bring the conductive rolling units in electrical contact with the transmission traces, wherein the camera unit can freely rotate over the seat.

(*Emphasis added*). Applicants submit that claims 1, 9 and 10 patently define over the cited arts for at least the reason that the cited art fails to disclose at least the features emphasized above.

More specifically, Takada fails to teach or suggest that the transmission traces are in a form of coplanar and concentric structure and are located on one side of the camera unit. Takada teaches that a slip region transmitting unit is disposed within the first chamber 33 and includes several conductive rings 34 and several conductive contacts 36, wherein the conductive rings 34 are arranged vertically and mounted on the periphery of the pan shaft 22 through the insulating ring 35 and the conductive contacts 36 are secured on an inner wall of the bearing housing 31 through the insulating plate 37(col. 4, lines 28-37). Takada further emphasizes that the pan shaft 22 is supported to be rotatable relative to the signal transmitting unit 20 (col. 3, lines 58-59). Apparently, the pan shaft 22 recited by Takada is barely a rotatable axis and is definitely not a so-call "camera unit".

Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

Besides, the arrangement of the conductive rings 34 vertically arranged is physically different from that of the present invention's transmission traces which are located on one side of the camera unit and are concentric and coplanar.

Furthermore, in the present invention, it is understood that the conductive rolling unit is rolling on the corresponding conductive traces while the camera unit is rotating along the center of the concentric transmission traces. However, in the citation, the conductive contacts 36 are secured on the inner wall of the bearing housing through the insulating plate 37 and no evidence can be found in the citation to support that the conductive contacts 36 can be rolling like wheels on the conductive rings 34 while the pan shaft 22 is rotating.

Therefore, Takada substantially fails to teach each and every feature of claims 1, 9 and 10, and therefore, Takada cannot possibly anticipate the claimed invention as claimed in the proposed independent claims 1, 9 and 10 in this regard.

Claims 2, 5-8 and 11-12, which depend from claims 1 and 10 respectively, are also patentable over Takada, at least because of their dependency from an allowable base claim.

For at least the foregoing reasons, Applicants respectfully submit that claims 1-2 and 5-12 patentably define over Takada, and therefore should be allowed. Reconsideration and withdrawal of the above rejections is respectfully requested.

*The Office Action also rejected claims 3-4 under 35 U.S.C. 103(a) as being unpatentable over Takada in view of Canizles Jr. (U.S. 2003/0073325, hereafter*

Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

*Canizles).*

Since claims 3-4 are dependent claims which further define the invention recited in claim 1, Applicants respectfully assert that these claims also are in condition for allowance according to the same reasons as discussed above for the rejection 102. Thus, reconsideration and withdrawal of this rejection are respectively requested.

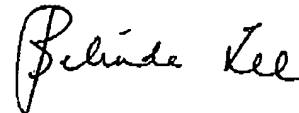
Customer No.: 91-001  
Application No.: 10/063,438  
Docket NO.: 8829-US-PA

### CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-12 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office  
7<sup>th</sup> Floor-1, No. 100  
Roosevelt Road, Section 2  
Taipei, 100  
Taiwan  
Tel: 011-886-2-2369-2800  
Fax: 011-886-2-2369-7233  
Email: [belinda@jciigroup.com.tw](mailto:belinda@jciigroup.com.tw)  
[Usa@jciigroup.com.tw](mailto:Usa@jciigroup.com.tw)

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